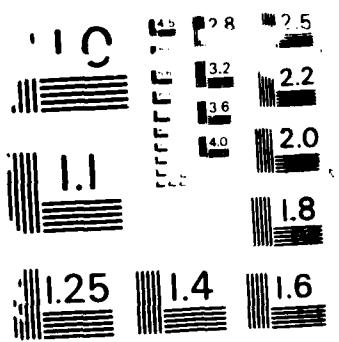


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J C LOGAN ET AL. OCT 87

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IGUANA - INTERACTIVE GRAPHICS UTILITY FOR AUTOMATED NEC ANALYSIS

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The Interactive Graphics Utility for Automated NEC Analysis (IGUANA) is a computer program designed to reduce the time for antenna model evaluation by providing partial automation to both the data entry process and the data display process.

IGUANA is an aid to NEC input data preparation and NEC output data display; IGUANA performs no antenna evaluations itself. IGUANA resides on a microcomputer (an IBM XT or compatible) and is independent of the main frame on which NEC resides. IGUANA is a composite of independently developed but fully integrated subprograms designed to aid in preparation and display of NEC related data sets. The effort required for NEC model composition and data entry is significantly reduced by the use of IGUANA; hence the time required to prepare an error free data set constituting a valid NEC model may be significantly reduced (from weeks to a matter of hours in some cases involving very complex models).

IGUANA provides for digitizer input of model geometry information with isometric image display on a monitor and hard copy on a plotter. Model maker features include model building by "gluing" together two or more models, wire sorting for ordering the specification of wires (which may reduce NEC solution time) and automatic generation of GW card images using user specified or system default parameters for wire radius and segmentation density.

IGUANA also has a simple card image editor customized to the requirements of NEC. The card editor includes field by field prompting of data required for creating geometry card images and control card images. The editor prevents some of the common but sometimes costly mistakes such as failure to use zeros for unused fields or improper entry of data in incorrect fields.

Other IGUANA features include automatic data file management, archiving and retrieval to floppy disks, and data file transfer to and from main frame computers.

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